Routine pharyngeal gonorrhoea test-of-cure: is 3 weeks after treatment better than 2?

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Background:
Pharyngeal gonorrhoea is associated with higher rates of treatment failure. While international guidelines vary on the role for routine test-of-cure (TOC) following treatment for gonococcal (GC) infections at all sites, the general recommendation is to perform TOC for pharyngeal GC after treatment. There are few studies on the optimal timing for TOC with nucleic acid amplification testing (NAAT), and some indicate slower clearance of non-viable organism following pharyngeal infection.

Methods:
We conducted a retrospective review of all pharyngeal GC treated at our sexual health clinic in Fremantle, Western Australia in 2024. SMS recall for TOC 2 weeks after treatment was in place during this period. Demographic and clinical characteristics, TOC return rate, and percent positivity for *Neisseria gonorrhoeae* DNA were collated to establish an ideal treatment-to-TOC interval for our patients.

Results:
85 pharyngeal GC infections were treated from January 1 to December 31. Of these, 92.9% (n=79) were treated with ceftriaxone-based therapy; 52.9% (45) received the recommended ceftriaxone 500mg and azithromycin 2g. Culture was attempted in 68.2% (58); no ceftriaxone resistance was identified. 52.8% (44) returned for TOC within 1-6 weeks. Three (6.8%) were positive at TOC and two (4.5%) were indeterminate (low-level reactivity not confirmed on supplemental testing). One positive TOC was attributed to probable reinfection, two to detection of residual non-viable organism; all were culture-negative. The mean interval for TOCs was 22.7 days after treatment (negative TOC 22.8 days, positive/indeterminate TOC 21.8 days, *P = 0.798*).

Conclusion:
Routine pharyngeal GC TOC yielded 6.8% positivity, 22.7 days after treatment on average. Treatment failure was uncommon; most positive TOCs related to residual non-viable bacterial DNA. This suggests the Australian STI Guidelines recommendation for TOC at 2 weeks may lead to higher false-positive rates, and testing should be performed a minimum of 3 weeks after treatment.

Disclosure of Interest Statement:
No conflicts to disclose.